IN THE UNITED STATES DISTRICT COURT

FOR THE MIDDLE DISTRICT OF FLORIDA

TAMPA DIVISION

UNITED STATES OF AMERICA, Plaintiff, v. STAUFFER MANAGEMENT COMPANY LLC AND BAYER CROPSCIENCE INC. Defendants.	Civil Action No. 8-05CV1024T23TGW

FIRST AMENDMENT TO CONSENT DECREE

I. BACKGROUND

WHEREAS:

A. The United States of America, on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), filed a complaint in this matter pursuant to Sections 106 and 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9606 and 9607, as amended ("CERCLA"), seeking (1) reimbursement of response costs incurred by EPA and the Department of Justice for response actions at the Stauffer Chemical Superfund Site in Tarpon Springs, Pinellas County, Florida (the "Site"), together with accrued interest; and (2) performance of studies and response work by the defendants at the Site consistent with the National Contingency Plan, 40 C.F.R. Part 300 (as amended) ("NCP").

B. The United States and the Defendants executed a Consent Decree that was entered by the Court as a final judgment on October 19, 2005, resolving the claims in the Complaint.

C. The Consent Decree in Paragraph 14.b provides that the "scope of the remedy selected

in [EPA Record of Decision ("ROD")] includes, among other things, "implementation of In-situ Solidification/Stabilization ["ISS"] of pond material and contaminated soil below the water table in the Consolidation Areas on site as delineated in the approved final design."

D. Defendants proceeded to implement the Consent Decree, including conducting pilot testing of the ISS technology. During this testing, a reaction occurred between residual elemental phosphorus in the old wastewater ponds and the ISS cement slurry, resulting in a fire in the test area. In addition, debris likely containing residual elemental phosphorus is present in the old wastewater ponds which would make implementing ISS more difficult. In response, EPA determined that a "cut off" wall should be substituted for the use of ISS to reduce the potential for contaminant migration from the former wastewater ponds.

E. In June 2007, EPA issued an Explanation of Significant Differences ("ESD") (Attachment A to this First Amendment to Consent Decree) pursuant to CERCLA § 117, 42 U.S.C. § 9617, and 40 C.F.R. § 300.435(c)(2)(I) of the NCP. The ESD retains the ROD's approach of addressing the contaminated wastewater pond sediments in place, but substitutes the cut-off wall approach for ISS. EPA presented this change to the Tarpon Springs community during a public meeting held on June 12, 2007. Other components of the scope of the remedy selected in the ROD, including excavation, capping, and restrictions regarding future on-site groundwater use and residential land use remain unchanged.

F. To provide for the implementation of the remedy as modified by the ESD, the Parties have entered into this First Amendment to Consent Decree.

NOW, THEREFORE, it is hereby ORDERED, ADJUDGED AND DECREED as follows:

1. The Consent Decree shall remain in full force and effect in accordance with its terms, except

that Paragraph 14.b. is amended and restated as follows:

"For the purposes of this Paragraph 14 and Paragraphs 48 and Paragraph 50 only, the "scope of the remedy selected in the ROD" is: limited excavation of radiologically and chemically contaminated material/soil which exceed Residential Cleanup Standards; consolidation of contaminated material/soil in the main pond area, slag area, and/or other areas on site; placement of Top Cover Caps which meet Florida Administrative Code §62-701.600.5(g) over the Consolidation Areas; and construction of a sub-surface groundwater cut off wall around the perimeter of the former wastewater ponds to channel horizontal groundwater flow to reduce the potential for contaminant migration in the shallow groundwater."

SO ORDERED THIS ___ DAY OF _____, 2007.

_____
United States District Judge

THE UNDERSIGNED PARTIES enter into this Amendment to Consent Decree in the matter of United States v. Stauffer Management Company LLC and Bayer CropScience Inc. Civil Action Number 8-05CV1024T23TGW, relating to the Stauffer Chemical Superfund Site in Tarpon Springs, Flordia.

FOR THE UNITED STATES OF AMERICA

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THE UNDERSIGNED PARTIES enter into this Amendment to Consent Decree in the matter of

United States v. Stauffer Management Company LLC and Bayer CropScience Inc. Civil Action Number 8-05CV1024T23TGW, relating to the Stauffer Chemical Superfund Site in Tarpon Springs, Flordia.

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THE UNDERSIGNED PARTIES enter into this Amendment to Consent Decree in the matter of United States v. Stauffer Management Company LLC and Bayer CropScience Inc., Civil Action Number 8-05CV1024T23TGW, relating to the Stauffer Chemical Superfund Site in Tarpon Springs, Flordia.

FOR DEFENDANTS STAUFFER MANAGEMENT COMPANY LLC and BAYER CROPSCIENCE INC.

Date: 9/19/07

LUKE W. METTE, Esquire
President, Stauffer Management Company LLC
P.O. Box 15437
Wilmington, DE 19850-5437

Authorized to execute this Amended Consent Decree on behalf of Stauffer Management Company LLC and Bayer CropScience Inc.

Agent Authorized to Accept Service on Behalf of the Above-signed Party:

Name: Michael P. Kelly
Title: Attorney, McCarter & English, LLP
Address: 405 N. King Street, 8th Floor
Wilmington, DE 19801
Phone: (302) 984-6301

EPA

United States
Environmental Protection
Agency

EXPLANATION OF SIGNIFICANT DIFFERENCES FACT SHEET

STAUFFER CHEMICAL
SUPERFUND SITE
Tarpon Springs, Pinellas County, Florida
June 2007

Summary of Explanation of Significant Differences

EPA plans to substitute a groundwater "cut off" wall for the use of in-situ solidification (ISS) to reduce the potential for contaminant migration from the former waste ponds. EPA plans to make this change because of implementation issues identified during the pilot testing of the ISS technology. During this testing, a reaction occurred between elemental phosphorus and the cement slurry which contributed to a fire in the test area. In addition, there is debris in portions of the old ponds which makes solidification impracticable. Some of the debris likely contains residual elemental phosphorus.

The use of a cut off wall will reduce the movement of groundwater contamination. The wall would be installed below ground around the perimeter of the former waste ponds. Modifying this component of the remedy will avoid the problems associated with implementing ISS at full scale.

Other components of the remedy, including capping and restrictions regarding future on-site groundwater use and land use, remain unchanged. The capping called for in the ROD will cover contaminated soil including the area inside the subsurface cut off wall and will form a protective barrier designed to prevent contact with contaminated materials.

Introduction

This Explanation of Significant Differences (ESD) for the Stauffer Chemical (Stauffer) Site in Tarpon Springs, Pinellas County, Florida, has been prepared by the Region 4 Office of the United States Environmental Protection Agency (EPA). The purpose of this ESD is to change the solidification component of the Site remedy. Based on the experience from the pilot study for the in situ solidification (ISS) component of the selected remedy, EPA has decided to use a groundwater cut off wall instead of ISS.

This ESD is being issued as part of the public participation responsibilities under Section 117 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), and Section 300.435(c)(2)(i) of the National Contingency Plan (NCP), 40 C.F.R. Part 300.

The Administrative Record contains documents used as the basis for the remedy selection at the Site, including the Pond Remedy Assessment Report and the Pond Remedy Conceptual Design. This ESD will become part of the Administrative Record in accordance with Section 300.825(a)(2) of the National Contingency Plan. The Administrative Record documents are available for public review and copying in the Stauffer Site information repository. The repository is located at the Tarpon Springs Library located at 138 East Lemon Street.

New Site Information Prompting ESD

The field experience gained from the pilot test provides the new information prompting this ESD. The pilot test for ISS was conducted during late January to mid February 2006. On February 15, 2006, a fire occurred in the test area. The fire resulted from a reaction between the elemental phosphorus below ground and the cement mixture used for solidification. This reaction contributed to the formation of phosphine gas which would bubble through the cement slurry, exposing elemental phosphorus to the air. The onsite workers used water, sand, and a carbon/sand mixture in efforts to control the fire. Ultimately, the Tarpon Springs Fire department responded to the incident. The Site workers continued to control flare ups on the test cell that evening and continued monitoring for several days.

During this event, phosphine was detected on site near the test cell and at the southern site boundary near the Anclote River. However, off-site air monitoring, which was conducted by the Tarpon Springs Fire Department, showed no presence of phosphine. In addition, ATSDR and the Florida Department of Health evaluated the air monitoring data and concluded that there would be no off-site health impacts as a result of the incident.

Metal debris was also noted in portions of the former waste ponds targeted for ISS. The debris interferes with the mixing operation required for ISS, further complicating the implementation of the ISS portion of the Site remedy. In addition, some of the debris likely contains elemental phosphorus, making it more difficult to excavate and safely handle the debris prior to performing solidification.

As a result of the pilot scale study, EPA has concluded that the ISS portion of the remedy should not be implemented at the full scale. There is a potential that a larger phosphorus fire could occur or a greater amount of phosphine could be generated during full scale operations if larger quantities of elemental phosphorus are encountered during the ISS operations.

Because of the identified implementation problems for ISS that are due to the presence of elemental phosphorus and metal debris, EPA has determined that it is necessary to change this component of the Record of Decision (ROD). This change consists of using a groundwater cut off wall instead of ISS to reduce potential contaminant migration from the pond material through the shallow groundwater.

The cut off wall would be constructed of interlocking sheetpile panels driven below the ground surface to a depth of approximately 10-20 feet. The cut off wall would be installed around the perimeter of the waste ponds. The cut off wall will channel horizontal groundwater flow around the contaminated pond sediments that are located below the water table, thus reducing potential contaminant migration.

According to previous groundwater studies conducted at the Site, there is not a strong vertical gradient between the surficial aquifer and the Upper Floridan aquifer. Also, the groundwater studies noted that groundwater contamination in the surficial aquifer is mainly found in or adjacent to source areas such as the former waste ponds.

The concept of the cut off wall is presented in this fact sheet. The exact configuration of the cut off wall will be further refined during the design process. The conceptual layout is noted in Figures 1 and 2. Figure 1 shows the entire site property and the location of the cut off wall. Figure 2 shows a more close up view of the location of the cut off wall. The wall is open at the western end because a completely enclosed layout could potentially increase the downward vertical movement of groundwater and contaminants to the Upper Floridan aquifer.

The next design document will be the preliminary remedial design which may be completed by the fall of 2007 and will be made available to the public. The preliminary design will include the subsurface cut off wall and the caps over contaminated soil/sediment including the area inside the subsurface cut off wall.

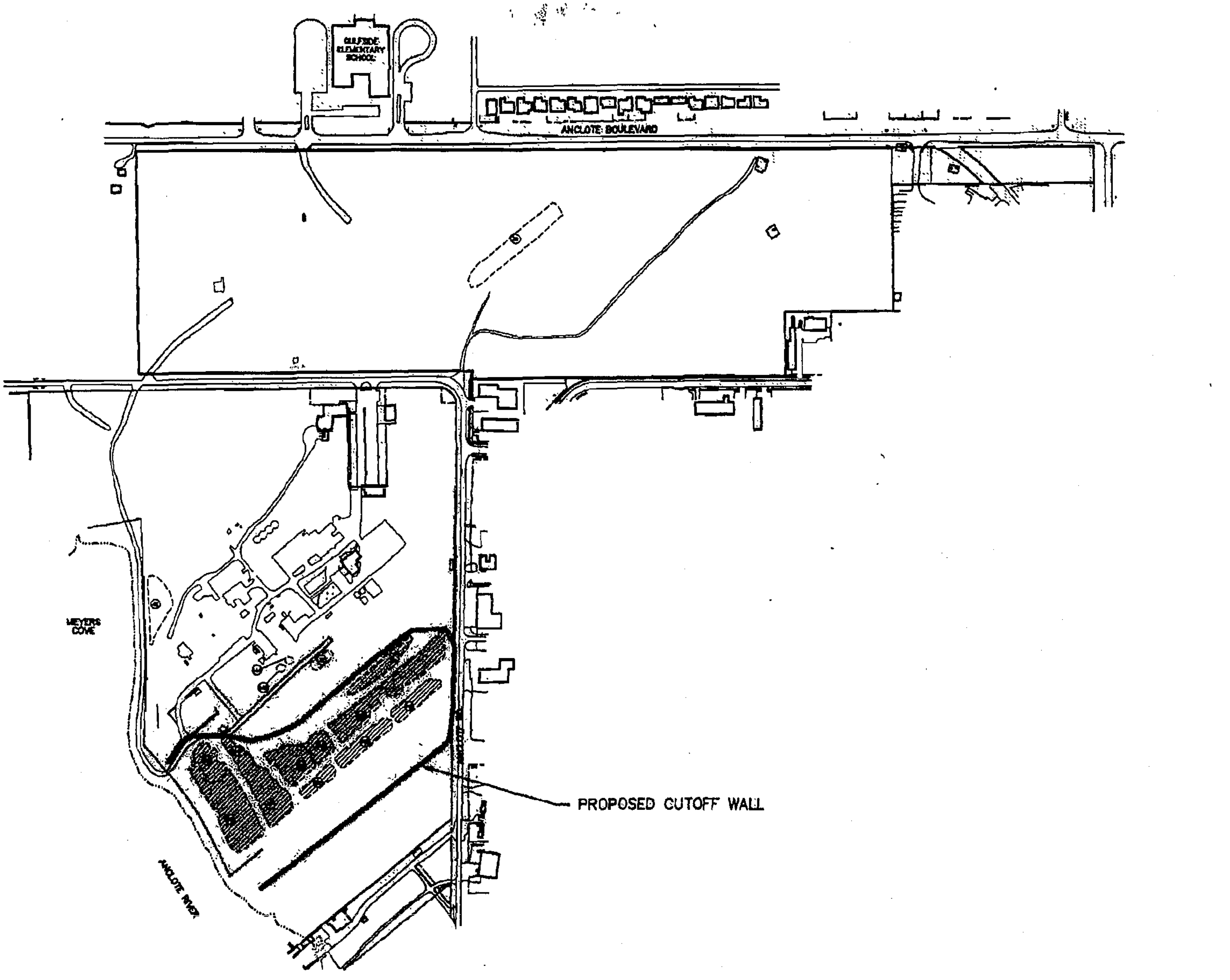


FIGURE 1

LEGEND

PROPOSED CUTOFF WALL LOCATION

POND NUMBER

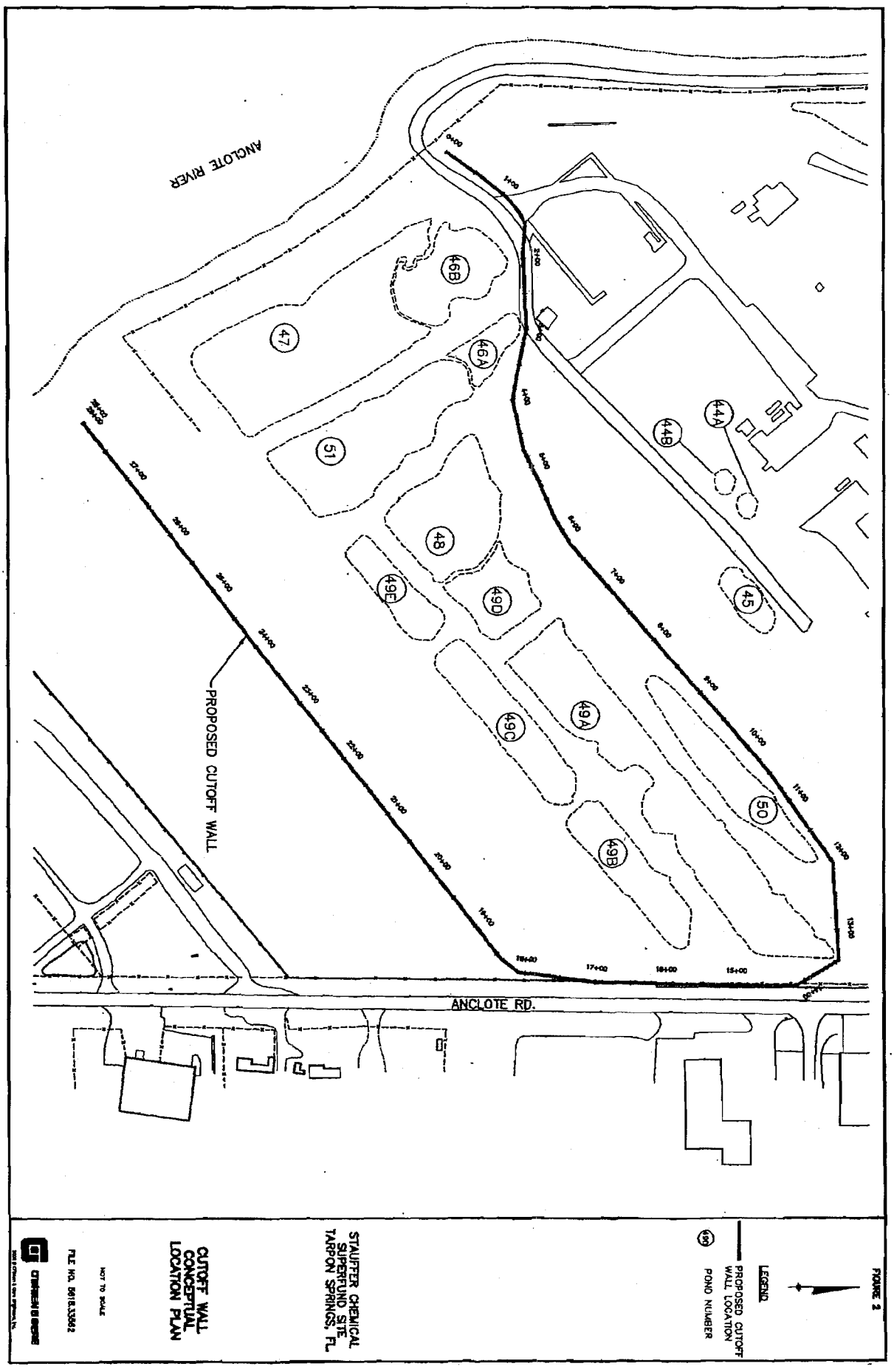
STAUFFER CHEMICAL SUPERFUND SITE TARPON SPRINGS, FL

CUTOFF WALL CONCEPTUAL SITE LOCATION PLAN

NOT TO SCALE

FILE NO. 5618.33562

O'BRIEN & GERE


ANCLOTE RIVER
PROPOSED CUTOFF WALL
ANCLOTE RD.
46B
47
46A
51
48
49E
49D
49C
49A
49B
50
45
44A
44B
LEGEND
PROPOSED CUTOFF WALL LOCATION
POND NUMBER
FIGURE 2
STAUFFER CHEMICAL SUPERFUND SITE TARPON SPRINGS, FL.
CUTOFF WALL CONCEPTUAL LOCATION PLAN
NOT TO SCALE
FILE NO. 5618.33062
O'BRIEN & GERE

The NCP at 40 C.F.R. 300.435, notes that after adoption of a ROD, or the settlement or the entry of a Consent Decree, if the remedial or enforcement action taken differs from the remedy selected in the ROD with respect to scope, performance, or costs, the lead agency shall consult with the support agency, as appropriate and either publish an ESD or propose an amendment to the ROD. An ESD is required when the differences significantly change, but do not fundamentally alter the remedy. An example of a significant change is a change to a component of a remedy which does not fundamentally alter the overall cleanup approach. An ESD is the appropriate mechanism to document this significant change to one component of the Stauffer remedy. Through this ESD, the basic concept of managing the contaminated pond material in place is retained. It is expected to result in a minimal change in the overall cost of the Site remedy. In addition, the potential risk to future users of the Site is addressed by the capping component of the remedy. The capping called for in the ROD will cover contaminated soil including the area inside the subsurface cut off wall and will form a protective barrier designed to prevent contact with contaminated materials.

Site Background Information

The Stauffer Chemical Superfund Site is a former elemental phosphorus plant. The Site property is about 130 acres in size and is located on Anclote Road in Tarpon Springs, Pinellas County, Florida. The Site is near the Pinellas/Pasco County border, and lies along the Anclote River two miles upstream from the Gulf of Mexico. The Site property is generally flat with an average elevation of 10 feet above sea level. The City of Tarpon Springs is located approximately two miles southeast of the Site. Land use in the surrounding area includes light industrial, commercial and residential.

Operations at the Stauffer Site began in 1947 under the ownership of the Victor Chemical Company (Victor). The plant produced elemental phosphorus using phosphate ore. Stauffer purchased the plant from Victor in 1960 and operated it until it shut down operations in 1981. In 1983, the plant, including most process buildings, was decommissioned and dismantled. The only remaining structures at the Site are an old office building, former lunch room, guard building, and an equipment storage building. While operating, the plant used a system of seventeen unlined waste ponds on the Site. Site contaminants include arsenic, antimony, beryllium, elemental phosphorus, thallium, and radium-226.

EPA Actions at the Site

The Site was initially proposed for inclusion on the National Priorities List (NPL) in February 1992. Stauffer commenced a Remedial Investigation and Feasibility Study (RI/FS) for the Site pursuant to 40 C.F.R. §300.430 and in accordance with an administrative order on consent (AOC) issued by EPA. The Site was placed on the NPL on May 31, 1994. Stauffer completed a Remedial Investigation (RI) Report in December 1993 and completed a Feasibility Study (FS) Report in March 1996. This study evaluated the contamination at the Site, determined the potential risks posed by the contaminants, and identified and evaluated methods for remediating the contamination. On July 2, 1998, EPA issued a ROD for the Site.

After the ROD was signed, Stauffer entered into a RD/RA Consent Decree to perform the design and construction of the remedy. Based upon public comments received on the first Consent Decree that was lodged in April 2000, the first Consent Decree was withdrawn. Stauffer Management Company then entered into an agreement with EPA to conduct additional Site characterization studies. The studies were designed to address specific questions about sink holes, other features of the Site, and the selected remedy, to further ensure that the selected remedy was safe and would provide long term protection of human health and the environment over the life of the remedy. All of the studies have been completed and included separate geophysical, groundwater, and treatability studies reports which were approved by EPA on May 20, 2004. The findings of these studies support the selected remedy outlined in the ROD and provide a further technical basis for the remedial design. These

studies did not recommend changing any of the remedial requirements contained in the ROD. Upon completion of these additional studies, EPA and Stauffer Management Company negotiated another RD/RA Consent Decree. On October 20, 2005, the RD/RA Consent Decree was entered by the U.S. District Court for the Middle District of Florida.

Original Record of Decision

On July 2, 1998, EPA issued a ROD for Operable Unit #1 (OU#1) at the Site. The ROD addressed the first of two operable units planned for the Site. OU#1 addressed the source areas – contaminated soils and sediments.

The major components of the original selected soils remedy included:

•limited excavation of radiologically and chemically contaminated material/soil exceeding cleanup standards
•consolidation of contaminated material/soil in the main pond area, slag area, and/or other areas on-Site
•placement of caps over the consolidation areas; the caps will meet requirements of Florida Administrative Code § 62-701.600.
•Placing institutional controls on the Site, including deed restrictions, land use ordinances, physical barriers, and water supply well permitting restrictions
•in-situ solidification/solidification of pond material and contaminated soil below the water table in the consolidation areas on-Site. **This component of the remedy is the subject of this ESD. A cut-off wall will be used instead of in-situ solidification for the former waste ponds** (the capping called for in the ROD will cover contaminated soil including the area inside the subsurface cut off wall and will form a protective barrier designed to prevent contact with contaminated materials).

Statutory Determination

The selected remedy as modified by this ESD for the Stauffer Chemical Company Superfund Site OU#1 ROD remains protective of human health and the environment, complies with CERCLA, the NCP and state requirements that are applicable or relevant and appropriate to the remedial action and is cost-effective. FDEP, as the support agency, agrees with this ESD.

Next Steps

EPA will also hold a public availability session to discuss this ESD. In addition, Stauffer will proceed with the preliminary design of the overall Site remedy, including capping and the cut off wall. The preliminary design may be completed by the fall of 2007 and will be made available to the public.

Public Availability Session
June 12, 2007
6:00-8:00 pm
Tarpon Springs Public Library
138 East Lemon Street
Tarpon Springs, FL 34689
727/943-4922

Supporting documentation for this ESD can be found in the Administrative Record which is stored locally at the Tarpon Springs Public Library as noted above.

AUTHORIZING SIGNATURE:

Franklin Hill, Acting Division Director
Superfund Division
U.S. Environmental Protection Agency
Region 4

Date: 5/24/07

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Information Repositories

Tarpon Springs Public Library
138 East Lemon Street
Tarpon Springs, FL 34689
(727) 943-4922
Hours: Mon-Thu (10am-9pm)
Fri-Sat (9am-5pm)
Sun (12:30pm-5:30pm)

U.S. EPA Region 4 Library
Sam Nunn Federal Building
Ninth Floor Reception Area
61 Forsyth St., SW
Atlanta, GA 30303
(214) 665-6424
Mon-Fri (8:30am - 4:30pm)